

Notice of Allowability

Application No.

10/502,013

Examiner

Ronald W. Leja

Applicant(s)

PRIDHAM ET AL.

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers of 7/20/2004.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7/20/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Ronald W. Leja
Primary Examiner
Art Unit 2836

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The following is an Examiner's Statement of Reasons for Allowance: The claims are drawn to fasteners and aircraft skin wherein lightning is diverted from the fasteners. The claimed combinations found within Independent Claims 1 and 6 each require a conductive layer being configured so as to overlie and have edges extending laterally of the bolt head and being separated therefrom by insulating material, the layer of insulating material adjacent the lateral edges of the conductive layer being adapted to break down dielectrically before dielectric breakdown can occur in the insulating material separating the conductive layer and the bolt head, thereby diverting electrical current from a lightning strike away from the fastener and preventing arcing at the fastener. Covey (4,628,402) teaches lightning protection of fasteners in composite materials, such as, found in aircraft. Figure 5 illustrates the use of a conductive layer (38) having edges extending laterally of the fastener head (14) and being separated therefrom by insulating material (36, 30). However, the layer of insulating material (30) adjacent the lateral edges of the conductive layer (38) is not disclosed as nor is it suggested that the layer is adapted to break down dielectrically before dielectric breakdown can occur in the insulating material (36) separating the conductive layer and the fastener head. It is further noted that copper layer (38) contacts conductive layer (32) at the edge of the insulating layer (36), which is at the fastener head. That contact extends toward the interface of insulating layer (30) and the edges of conductive layer (copper layer (38)). It is therefore the opinion of the Examiner that any lightning strike would dissipate via (30) and (32) and that a specific relationship between dielectric breakdowns with respect to at the fastener (14) and at the edges of conductive layer (38) would have been obvious in view of hindsight only.

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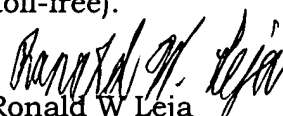
Claims 1-10 are considered to be novel and unobvious in view of the Prior Art of Record.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W. Leja whose telephone number is (571)272-2053. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ronald W Leja
Primary Examiner
Art Unit 2836

11/24/05

rwl
November 27, 2005